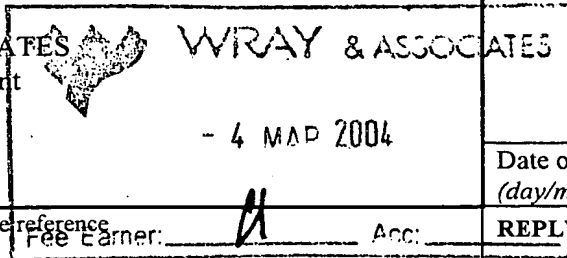


PATENT COOPERATION TREATY

From the:
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

WRAY & ASSOCIATES
Level 4 The Quadrant
1 William Street
PERTH WA 6000



PCT

WRITTEN OPINION
(PCT Rule 66)

Date of mailing
(day/month/year) - 3 MAR 2004

Applicant's or agent's file reference: 109064
Fee Earner: H Acc: **REPLY DUE** within **TWO MONTHS** from the above date of mailing

International Application No. PCT/AU2003/000813	International Filing Date (day/month/year) 27 June 2003	Priority Date (day/month/year) 27 June 2002
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International Patent Classification (IPC) or both national classification and IPC
Int. Cl. ⁷ F03B 13/18

Applicant

SEAPOWER PACIFIC PTY LTD et al

Checked: BG
Date: 04/03/04

**COPY FOR YOUR
INFORMATION**

1. This written opinion is the **first** drawn by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:

I	<input checked="" type="checkbox"/>	Basis of the opinion
II	<input type="checkbox"/>	Priority
III	<input type="checkbox"/>	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV	<input type="checkbox"/>	Lack of unity of invention
V	<input checked="" type="checkbox"/>	Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI	<input type="checkbox"/>	Certain documents cited
VII	<input type="checkbox"/>	Certain defects in the international application
VIII	<input type="checkbox"/>	Certain observations on the international application
3. The **FINAL DATE** by which the international preliminary examination report must be established according to Rule 69.2 is:
27 October 2004 ✓
4. The applicant is hereby **invited to reply** to this opinion.

When? See the **Reply Due** date indicated above. However, the Australian Patent Office will not establish the Report before the earlier of (i) a response being filed, or (ii) one month before the **Final Date** by which the international preliminary examination report must be established. The Report will take into account any response (including amendments) filed before the Report is established.

If no response is filed by 1 month before the Final Date, the international preliminary examination report will be established on the basis of this opinion.

Applicants wishing to have the benefit of a further opinion (if needed) before the report is established should ensure that a response is filed at least **3 months before the Final Date** by which the international preliminary examination report must be established.

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4. For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4bis. For an informal communication with the examiner, see Rule 66.6.

Name and mailing address of the IPEA/AU
AUSTRALIAN PATENT OFFICE
PO BOX 200, WODEN ACT 2606, AUSTRALIA
E-mail address: pct@ipaaustralia.gov.au
Facsimile No. (02) 6285 3929

Authorized Officer

R. SUBBARAYAN

Telephone No. (02) 6283 2577

ENTERED

04 MAR 2004

IN PROGRESS

BY

 Ch

I. Basis of the opinion**1. With regard to the elements of the international application:***

- ☒ the international application as originally filed.
- ☐ the description, pages , as originally filed,
 pages , filed with the demand,
 pages , received on with the letter of
- ☐ the claims, pages , as originally filed,
 pages , as amended under Article 19,
 pages , filed with the demand,
 pages , received on with the letter of
- ☐ the drawings, pages , as originally filed,
 pages , filed with the demand,
 pages , received on with the letter of
- ☐ the sequence listing part of the description:
 pages , as originally filed
 pages , filed with the demand
 pages , received on with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/fig.

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

** Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 16,18,22-29,31	YES
	Claims 1-15,17,19-21,30,32-34	NO
Inventive step (IS)	Claims 16,22-26,29,31	YES
	Claims 1-15,17-21,27-28,30,32-34	NO
Industrial applicability (IA)	Claims 1-34	YES
	Claims	NO

2. Citations and explanations

D1) US 5473892	Claims 1-6,12-15,17,32-34
D2) WO 99/66198	Claims 1-6,12-15,17,32-34
D3) US 4203294	Claims 1,17
D4) GB 2007314	Claims 1-11,17,19-21,30,32-34
D5) GB 2267128	Claims 1,17,19-21,30,33-34

NOVELTY

Each of the citations D1-D5 discloses all of the features of the claims identified alongside. For example D1 discloses an apparatus for capturing wave energy including a body structure having a portion 34 thereof adapted to deflect in response to wave action which in turn expands and contracts a pumping chamber 26, whereby fluid is pumped.

Similarly D4 discloses a body structure having a portion 1 thereof adapted to move in response to wave action, a pumping chamber having an elastomeric wall and operatively connected to the portion 1 to pump a fluid.

INVENTIVE STEP

Claims 1-15,17,19-21,30,32-34: As above

Claims 18,27,28: The features added by these claims are considered common general knowledge in the art and therefore are not inventive.

PCT REQUEST

109064

Original (for SUBMISSION) - printed on 27.06.2003 01:04:33 PM

0	For receiving Office use only	
0-1	International Application No.	
0-2	International Filing Date	
0-3	Name of receiving Office and "PCT International Application"	COPY FOR YOUR INFORMATION
0-4	Form - PCT/RO/101 PCT Request	
0-4-1	Prepared using	PCT-EASY Version 2.92 (updated 01.04.2003)
0-5	Petition The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
0-6	Receiving Office (specified by the applicant)	Australian Patent Office (RO/AU)
0-7	Applicant's or agent's file reference	109064
I	Title of invention	WAVE ENERGY CONVERTER
II	Applicant	
II-1	This person is:	applicant only
II-2	Applicant for	all designated States except US
II-4	Name	SEAPOWER PACIFIC PTY LTD
II-5	Address:	1st Floor, 16 Ord Street West Perth, Western Australia 6005 Australia
II-6	State of nationality	AU
II-7	State of residence	AU
III-1	Applicant and/or inventor	
III-1-1	This person is:	applicant and inventor
III-1-2	Applicant for	US only
III-1-4	Name (LAST, First)	BURNS, Alan, Robert
III-1-5	Address:	106 Williams Road Nedlands, Western Australia 6009 Australia
III-1-6	State of nationality	AU
III-1-7	State of residence	AU

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III-2	Applicant and/or inventor	
III-2-1	This person is:	applicant and inventor
III-2-2	Applicant for	US only
III-2-4	Name (LAST, First)	TINC, Petru
III-2-5	Address:	12 Barrier Green Ocean Reef, Western Australia 6027 Australia
III-2-6	State of nationality	AU
III-2-7	State of residence	AU
IV-1	Agent or common representative; or address for correspondence The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent
IV-1-1	Name	WRAY & ASSOCIATES
IV-1-2	Address:	Level 4, The Quadrant 1 William Street Perth, Western Australia 6000 Australia
IV-1-3	Telephone No.	+61 8 9216 5100
IV-1-4	Facsimile No.	+61 8 9216 5199
IV-1-5	e-mail	wray@wray.com.au
V	Designation of States	
V-1	Regional Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	AP: GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW and any other State which is a Contracting State of the Harare Protocol and of the PCT EA: AM AZ BY KG KZ MD RU TJ TM and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT EP: AT BE BG CH&LI CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE SI SK TR and any other State which is a Contracting State of the European Patent Convention and of the PCT OA: BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG and any other State which is a member State of OAPI and a Contracting State of the PCT

PCT REQUEST

109064

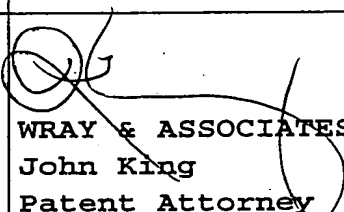
Original (for SUBMISSION) - printed on 27.06.2003 01:04:33 PM

V-2	National Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH&LI CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
V-5	Precautionary Designation Statement In addition to the designations made under items V-1, V-2 and V-3, the applicant also makes under Rule 4.9(b) all designations which would be permitted under the PCT except any designation(s) of the State(s) indicated under item V-6 below. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit.	
V-6	Exclusion(s) from precautionary designations	NONE
VI-1	Priority claim of earlier national application	
VI-1-1	Filing date	27 June 2002 (27.06.2002)
VI-1-2	Number	PS3247
VI-1-3	Country	AU
VI-2	Priority claim of earlier national application	
VI-2-1	Filing date	23 December 2002 (23.12.2002)
VI-2-2	Number	2002953559
VI-2-3	Country	AU
VI-3	Priority document request The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) identified above as item(s):	VI-1, VI-2
VII-1	International Searching Authority Chosen	Australian Patent Office (ISA/AU)
VII-2	Request to use results of earlier search; reference to that search	
VII-2-1	Date	04 September 2002 (04.09.2002)
VII-2-2	Number	02/2586
VII-2-3	Country (or regional Office)	AU

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109064

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VIII	Declarations	Number of declarations	
VIII-1	Declaration as to the identity of the inventor	-	
VIII-2	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent	-	
VIII-3	Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application	-	
VIII-4	Declaration of inventorship (only for the purposes of the designation of the United States of America)	-	
VIII-5	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty	-	
IX	Check list	number of sheets	electronic file(s) attached
IX-1	Request (including declaration sheets)	5	-
IX-2	Description	43	-
IX-3	Claims	6	-
IX-4	Abstract	1	EZABST00.TXT
IX-5	Drawings	52	-
IX-7	TOTAL	107	
	Accompanying items	paper document(s) attached	electronic file(s) attached
IX-8	Fee calculation sheet	✓	-
IX-17	PCT-EASY diskette	-	Diskette
IX-19	Figure of the drawings which should accompany the abstract	2	
IX-20	Language of filing of the international application	English	
X-1	Signature of applicant, agent or common representative	 WRAY & ASSOCIATES John King Patent Attorney	
X-1-1	Name		
X-1-2	Name of signatory		
X-1-3	Capacity		

FOR RECEIVING OFFICE USE ONLY

10-1	Date of actual receipt of the purported international application	
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/AU

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10-6	Transmittal of search copy delayed until search fee is paid	
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FOR INTERNATIONAL BUREAU USE ONLY

11-1	Date of receipt of the record copy by the International Bureau	
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PCT (ANNEX - FEE CALCULATION SHEET)

109064

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(This sheet is not part of and does not count as a sheet of the international application)

0	For receiving Office use only		
0-1	International Application No.		
0-2	Date stamp of the receiving Office		
0-4	Form - PCT/RO/101 (Annex)		
0-4-1	PCT Fee Calculation Sheet Prepared using	PCT-EASY Version 2.92 (updated 01.04.2003)	
0-9	Applicant's or agent's file reference	109064	
2	Applicant	SEAPOWER PACIFIC PTY LTD, et al.	
12	Calculation of prescribed fees	fee amount/multiplier	Total amounts (AUD)
12-1	Transmittal fee T	⇒	100
12-2-1	Search fee S	⇒	1,000
12-2-2	International search to be carried out by	AU	
12-3	International fee		
	Basic fee (first 30 sheets) b1	746	
12-4	Remaining sheets	77	
12-5	Additional amount (X)	17	
12-6	Total additional amount b2	1,309	
12-7	b1 + b2 = B	2,055	
12-8	Designation fees		
	Number of designations contained in international application	97	
12-9	Number of designation fees payable (maximum 5)	5	
12-10	Amount of designation fee (X)	161	
12-11	Total designation fees D	805	
12-12	PCT-EASY fee reduction R	-230	
12-13	Total International fee (B+D-R) I	⇒	2,630
12-14	Fee for priority document		
	Number of priority documents requested	2	
12-15	Fee per document (X)	50	
12-16	Total priority document fee P	⇒	100
12-17	TOTAL FEES PAYABLE (T+S+I+P)	⇒	3,830
12-19	Mode of payment	cheque	

VALIDATION LOG AND REMARKS

13-2-3	Validation messages Names	Green?
		Applicant 1.:Telephone No. missing
		Green?
		Applicant 1.:Facsimile No. missing